

Method Of Defining Coefficients For Use  
In Interpolating Pixel Values

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ABSTRACT OF THE DISCLOSURE

10 A method for generating coefficients for a set of  
convolution kernels for use in interpolating pixel values in  
an image sensor is described. The coefficients are computed  
by applying a constraint matrix specifying one or more  
constraints. The method includes generating ideal sensor  
data representative of a test image in a first color plane,  
generating sensor data of the test image, generating  $f$  data  
15 matrices including pixel data from multiple neighborhoods of  
pixels in the pixel array, and determining the coefficients  
for  $f$  convolution kernels using the ideal sensor data, the  $f$   
data matrices and by applying one or more constraints. The  
use of a constraint matrix greatly simplifies the  
20 computation of the coefficients and can be applied in image  
processing to generate a high quality full color image.